

the amplifier in a linear operating region for an appreciable percentage of the time. No such feature is taught or suggested by Hull.

Hull is particularly concerned with suppression of spurious signals resulting from regenerative oscillation using microstrip techniques. In terms of the power amplification structure itself, the teachings of Hull are quite unremarkable. Note that power to a driver stage 118 and a final stage 120 in Hull is *fixed* as determined by the voltage regulator 108. As described in col. 5 of Hull:

The supply voltage for the amplifiers 116, 118, 120 and 122 is developed from a supply voltage, +V, by a voltage regulator 108, which may be a conventional series-pass regulator. Thus, voltage regulator 108 allows the +V supply voltage to vary over a predetermined range, such as 25 to 30 volts, while maintaining a constant output voltage, such as +25 volts, to all of the amplifiers.

As for the pre-driver stage 116 of Hull, power to this stage is indeed varied in accordance with a power feedback signal from the power detector 112 and a possible alarm signal from the thermal alarm circuitry 104. Such variations, however, are typically very slow-moving. In any event Claim 12 and 13 recite in part that a controlled variable voltage is used as a supply voltage for a *final* (as opposed to pre-driver) amplification stage in accordance with a control signal for performing at least one of level control and burst control.

Moreover, the driver and final amplifier stages of Hull are operated in Class C, in which the amplifier operates as a controlled current source but is controlled to conduct less than 50% of the cycle. Class C operation does not entail "repeatedly driving the final amplification stage between two states, a hard-on state and a hard-off state, without operating the amplifier in a linear operating region for an appreciable percentage of time".

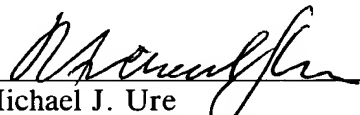
The arrangement of the present invention is very advantageous from the standpoint of both efficiency and control. Efficiency is maximized by operating the final amplifier stage as a switch. Control is greatly simplified in that the output power produced in

response to a control signal can be quite accurately predicted (e.g., within $\pm 10\%$), therefore avoiding the need for power monitoring and feedback.

For the foregoing reasons, Claims 12 and 13 are believed to patentably define over the cited references. Claims 2-6 and 8-10 are also believed to add novel and patentable subject matter to Claim 12. Notice of allowance is respectfully requested.

Respectfully submitted,

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